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Circulating Collections Book Repair Manual

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Circulating Collections Book Repair Manual

[Department of Preservation and Conservation](#)

Syracuse University Library

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Introduction:

Who doesn't love the feel or smell of a book? It is the very act of holding and using a book that causes the wear and tear. I have seen books from the 1800's in perfect condition that because they were made well are able to stand up to use. On the other hand, I have seen new publications printed on acid-free paper that fall apart because of poor quality adhesive bindings.

Our goal is to show you how to begin repairing items from our circulating book collection. Be careful because a repair done incorrectly can cause more harm than good if you are not sure don't do it. Never be afraid to ask, no question is too small.

It is important to maintain control over your work. Work should be neat and organized. When new staff is hired they are trained by an experienced person and given manuals for reference. Each employee's work is reviewed periodically to be certain that they understand the principles and techniques of book repair. This manual can be referred to if you are unsure of a step in the repair process.

The treatment of rare books and special collections materials is outside the scope of this manual. If you are planning on working with these types of materials please consult a conservator.

Marianne Hanley, Assistant Conservator.

Setting up a workspace:



Set aside a designated area with space to work and store items that you will need to use. You should have good lighting and access to a sink. Before investing in large equipment, you should have a clear idea of the type of work that you will be doing. It is a good idea to visit other workshops that have comparable programs.

Each person should have a table or workbench the size of a large desk. The best height is between 36 and 40 inches so that the person is comfortable standing. A stool or chair should be 6 -12" lower than the bench. It is important that the work bench is easy to clean, if possible shelves underneath for storing supplies.

Tools:



Bone Folders – smooth flat tool with rounded or pointed ends; used to crease paper, to rub down paper/cloth after gluing, and to set the joints when repairing bindings. This can be made out of animal bone or a synthetic alternative, we use Teflon.

Awl – pointed tool used for making holes when sewing a pamphlet binder or new text block on a book.

Straight edge cutting tools – Scalpel, mat knife or other cutting implements can be used for trimming paper or cutting materials. It is a good idea to have extra blades on hand. A dull cutting tool can be dangerous and difficult to use.

Lifting or utility knife – is a dull knife useful for cleaning the backs of spines of lifting book cloth.

Scissors – good quality, accurate scissors in a range of sizes are essential, heavy scissors for cutting board and cloth, medium for cutting paper and smaller for reaching narrow spaces.

Rulers and straight edges – used for measuring, a straight edge works best for cutting with scalpels or knives.

Self-Healing Cutting Mat – provides a grid surface for cutting paper; particularly useful for trimming end papers on the book where you cannot use a paper cutter. It does not dull the blades of cutting implements.

Weights – Bricks wrapped in heavy paper or binders cloth. Place on top of the finished book to help the book dry in the proper position.

Adhesive Glue – We use PVA, a Poly Vinyl Acetate adhesive. It is placed into plastic containers with lids to hold small quantities of adhesives.

Plexiglas Book Repair Rods – Set joints properly when tightening hinges and re-casing books. Knitting needles can also be used – the diameter should be equal to the board thickness.

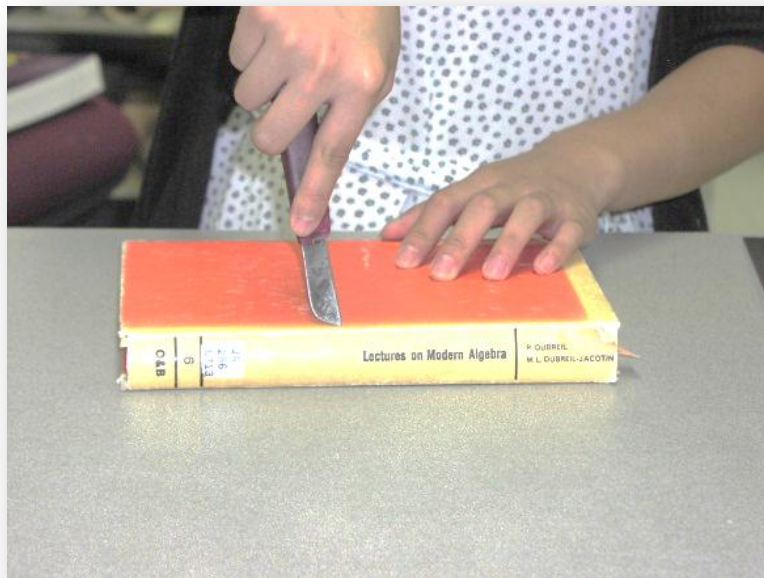
Spine Repair:

All like steps must be performed at the same time for all batches – min 5 items per batch.

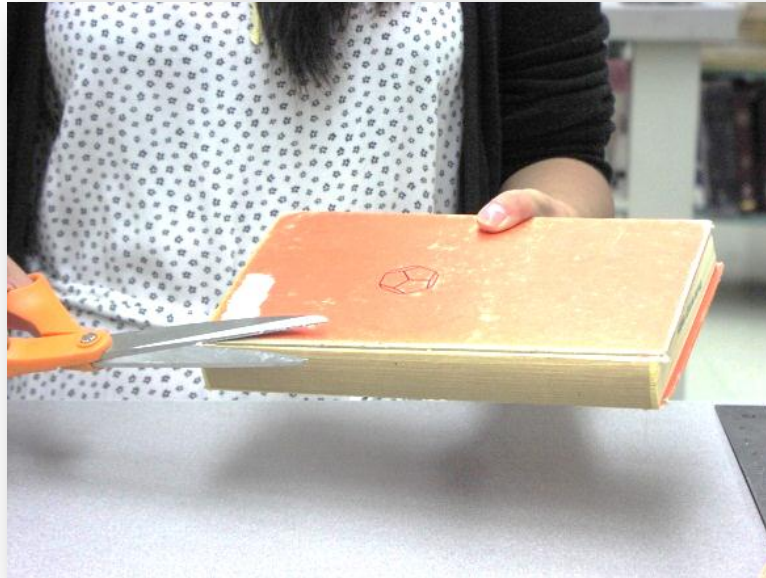
1. Carefully remove original spine by trimming through covering material $1/16^{\text{th}}$ inch from the board spine edge.



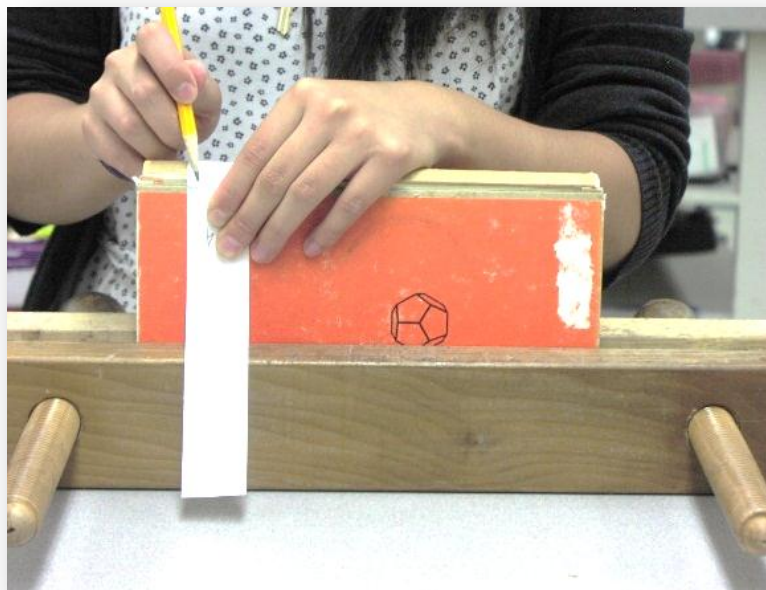
2. Run blunt knife under spine to detach cloth from board.



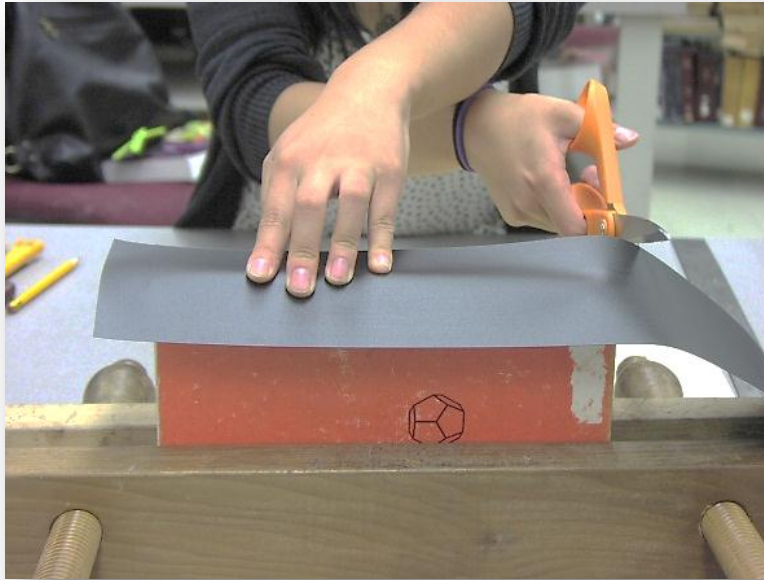
3. Clean spine edge and joint of board of loose/ragged material.



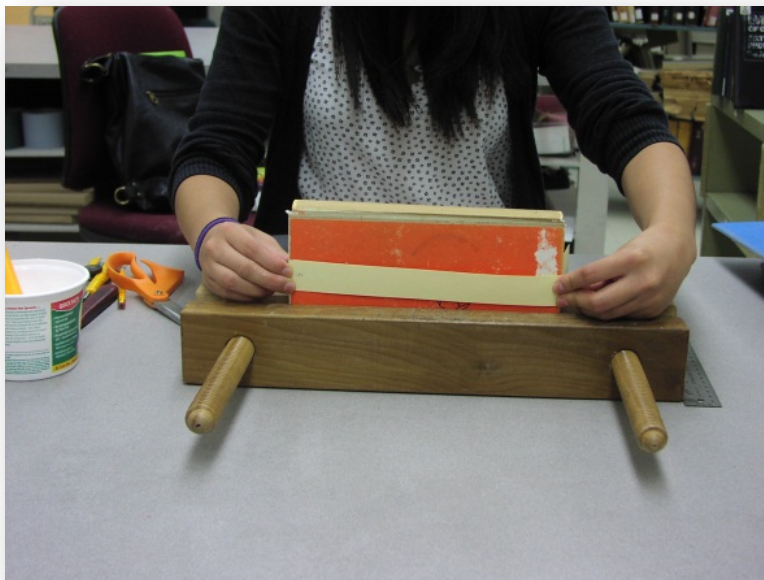
4. Select/cut spine stiffener to the appropriate width of book's spine. Length will equal that of the boards.



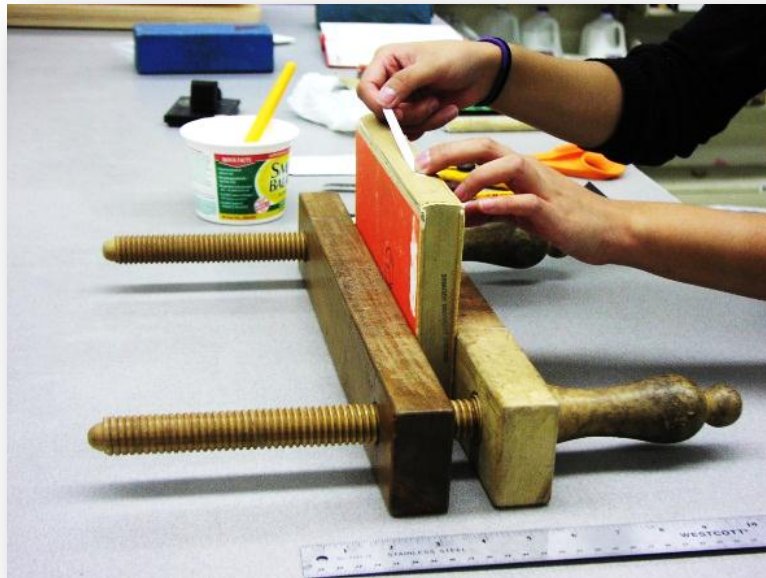
5. Select/cut spine cloth to appropriate height and width. Cloth should not extend onto boards by more than 1 inch top and bottom. Trim as needed.



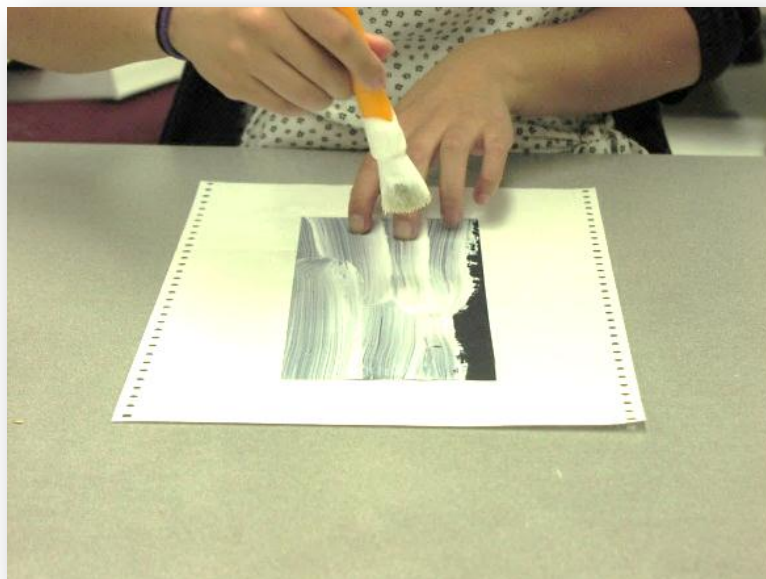
6. Place book in finishing press



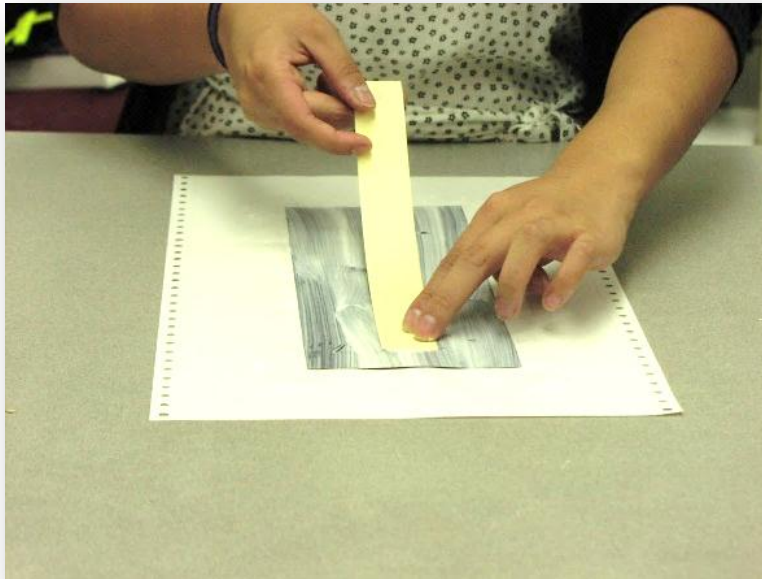
7. Apply security strip to inside of spine.



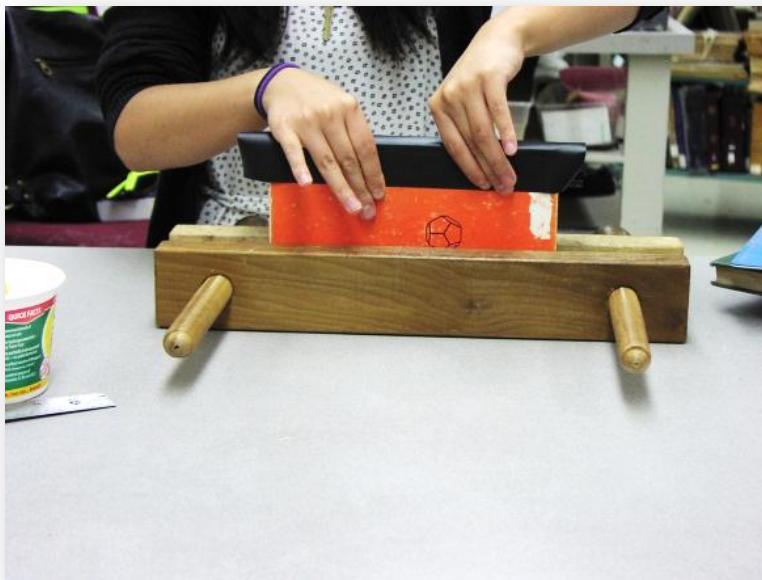
8. Glue out cloth.



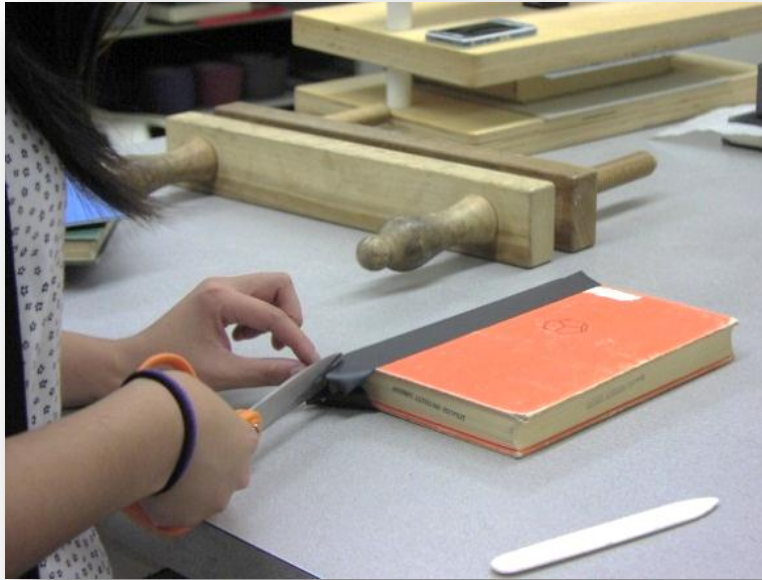
9. Center spine stiffener on cloth



10. Position new spine piece on spine of book, work into groove and smooth onto sides of boards.



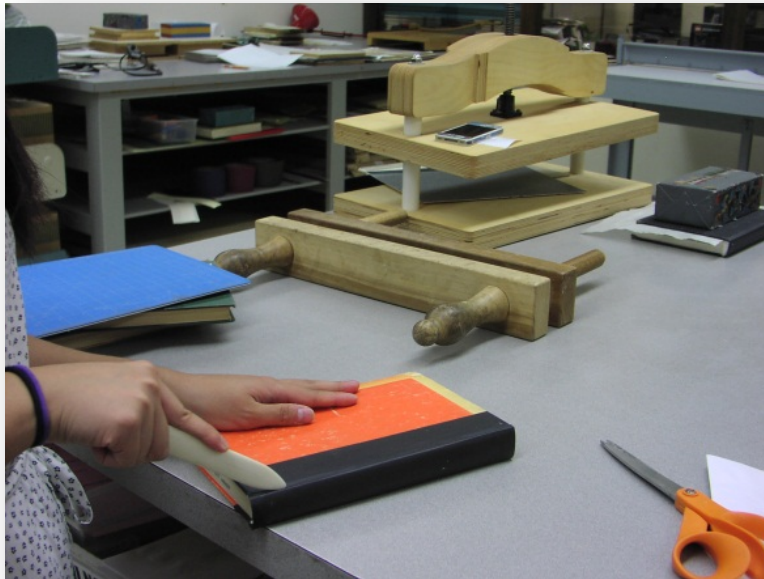
11. Remove from press. Cut “V” shape out of joints and turn-in at spine stopping 1 board thickness from the edge.



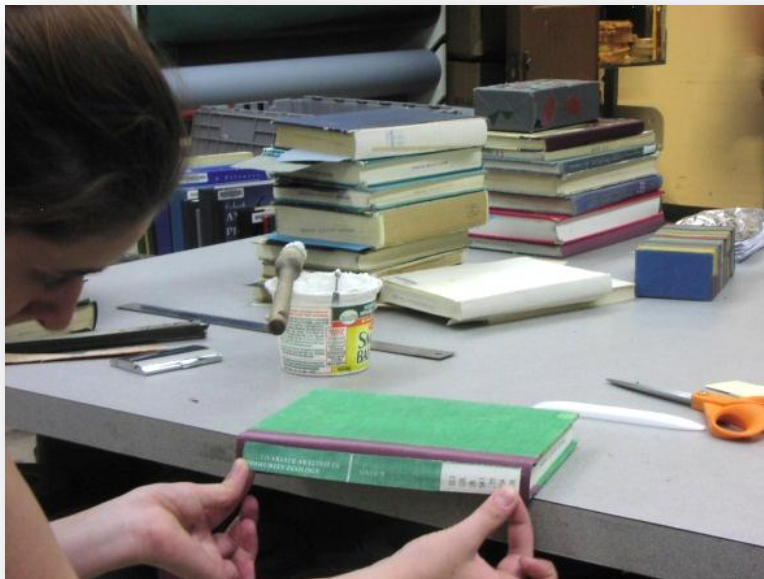
12. Turn-in remaining cloth onto the boards.



13. Work cloth into groove again to ensure glue adherence.



14. Trim original spine and place on new cloth spine.

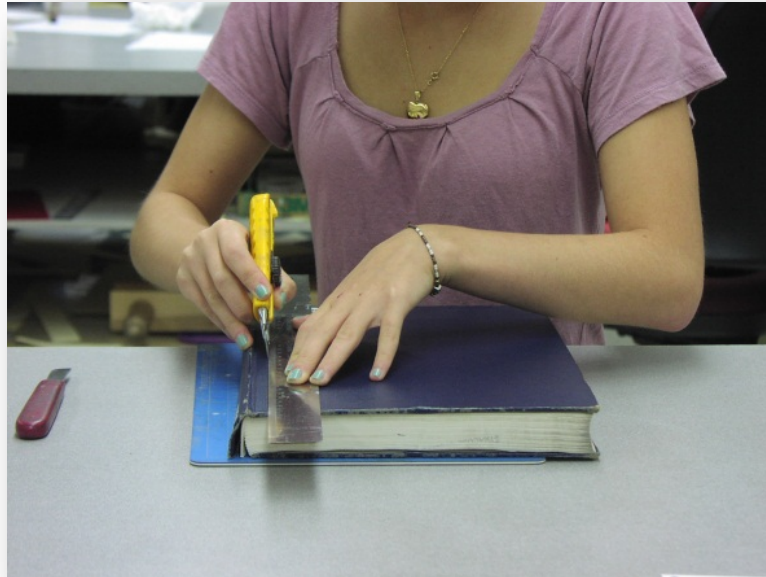


Video demonstration of this technique at <http://www.youtube.com/watch?v=jxZnSCsa2WQ>

Full Repair:

All like steps must be performed at the same time for all batches – min 5 items per batch.

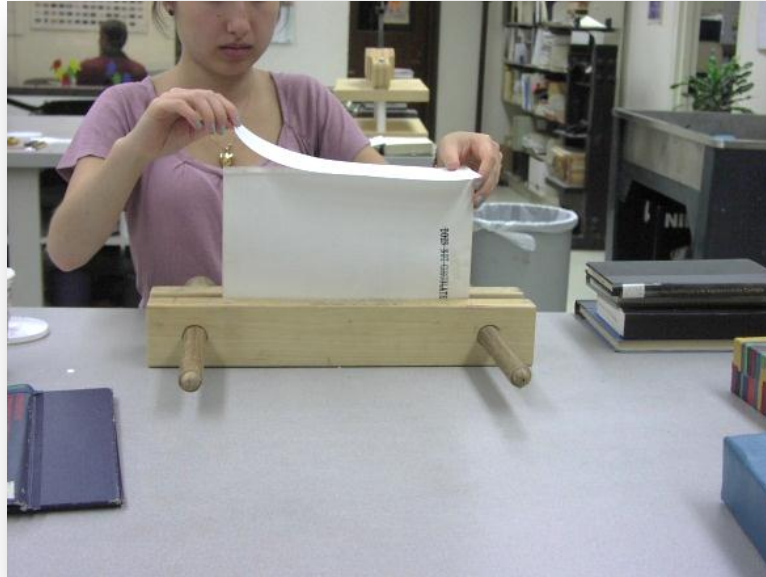
1. Remove covers.



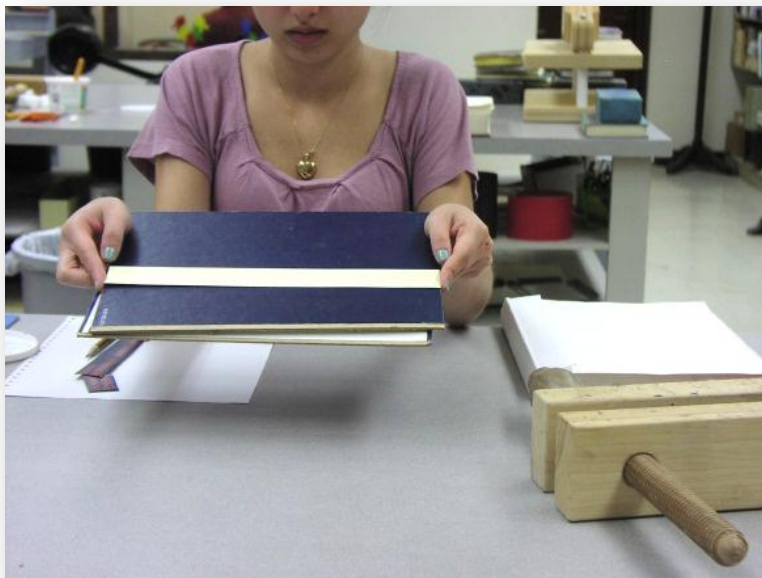
2. Clean spine edge of board of loose/ragged material.



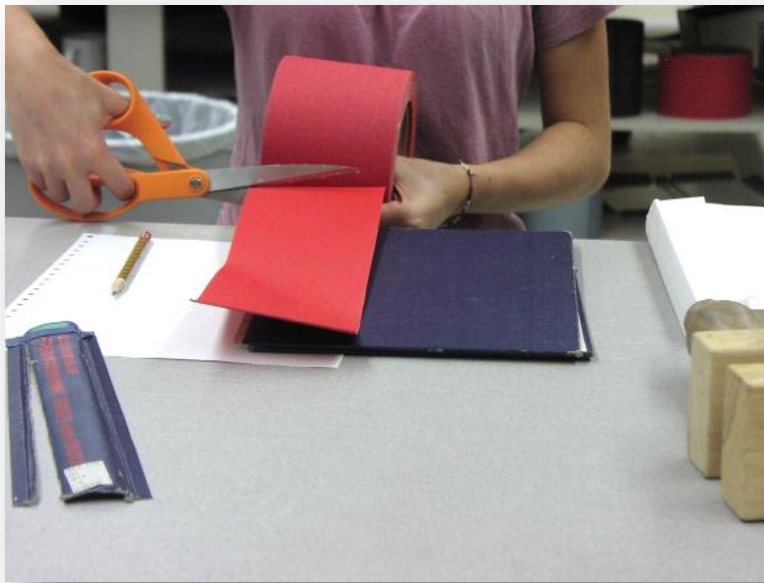
3. Clean spine and attach spine lining (hinge material should extend no more than 1.5" to either side of spine. Trim as needed.



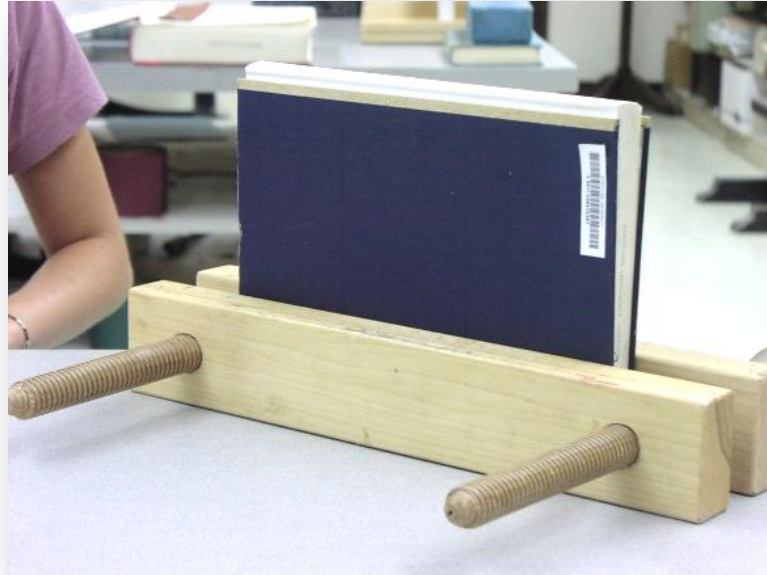
4. Select /cut spine stiffener appropriate to width of book's spine. Length will equal that of the boards.



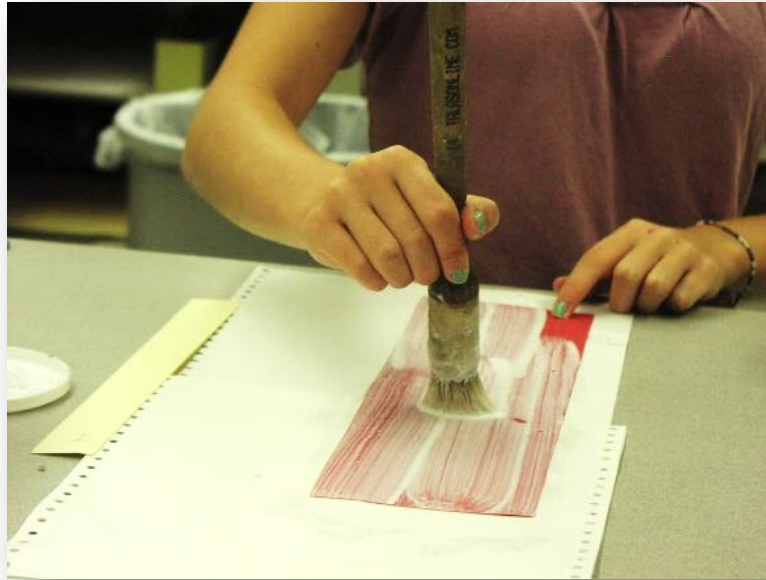
5. Select /cut spine cloth to appropriate height and width. Cloth should not extend onto boards by more than 1 inch top and bottom. Trim as needed.



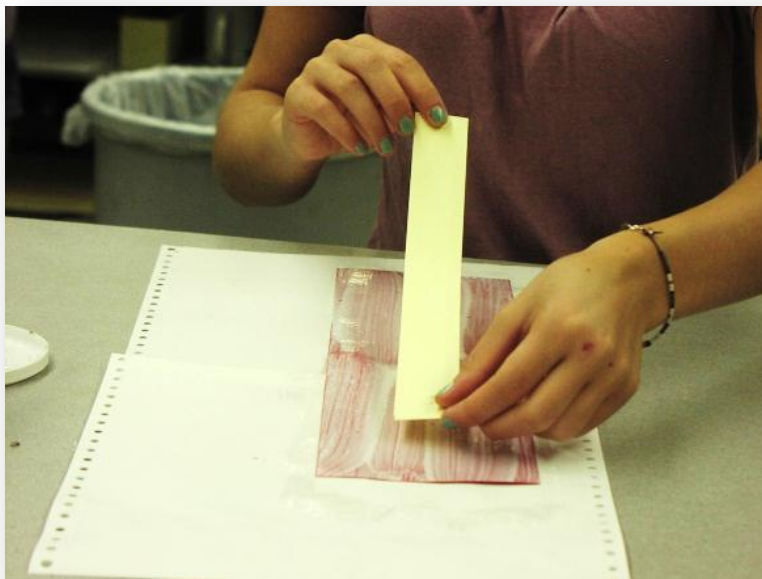
6. Place book with covers in finishing press.



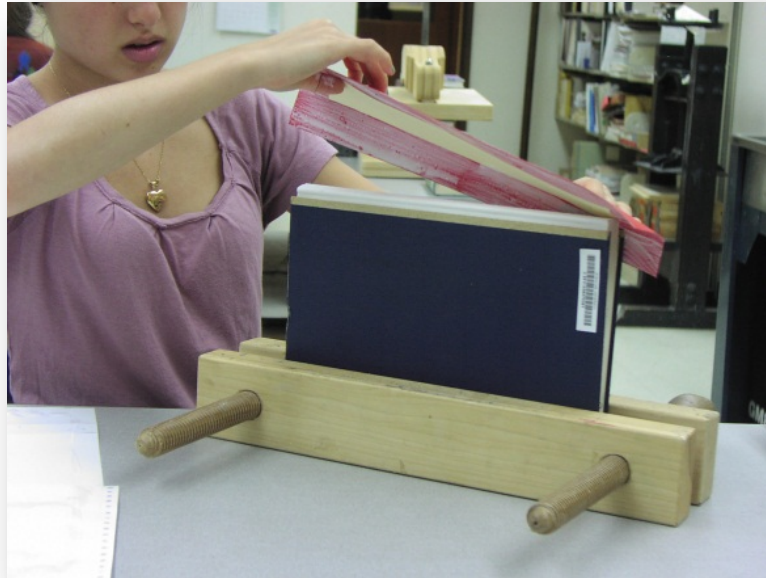
7. Glue out cloth.



8. Center spine stiffener on cloth.



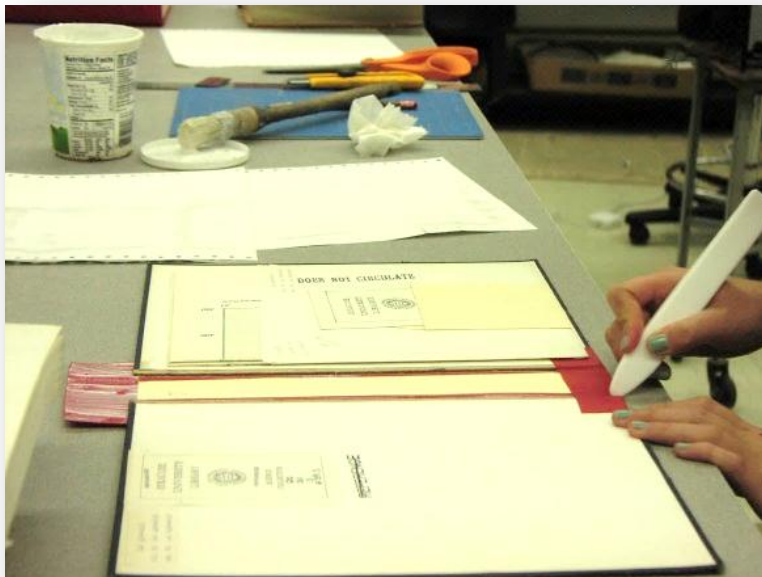
9. Position new spine piece on spine of book.



10. Work into groove and smooth onto sides of boards.



11. Remove from press. Remove cover and turn in cloth at head and tail.



12. Apply security strip to inside of spine.



13. Case-in by gluing down inner hinges.



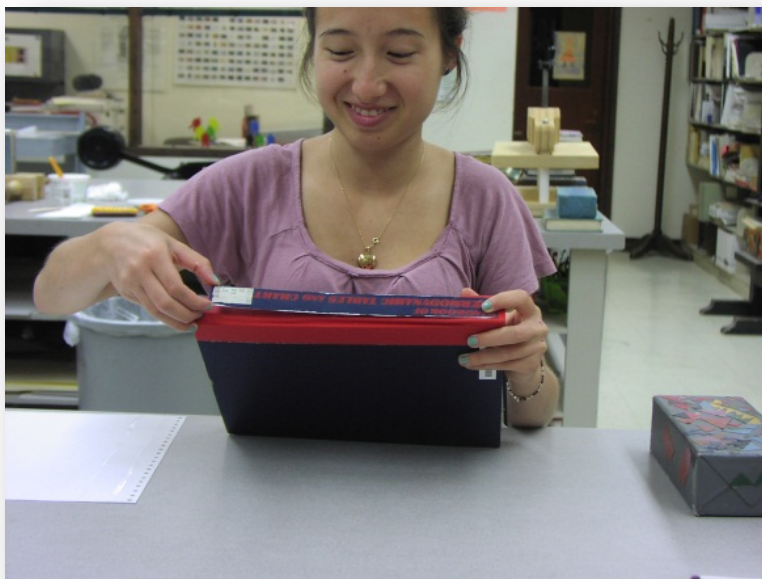
14. Rub down inner hinges with bone folder.



15. Rub down outer hinges with bone folder.



16. Trim original spine and place on new cloth spine.



Video demonstration of this technique at
<http://www.youtube.com/watch?v=LG4A5AU8BCw>

Page Tip-in:

Used to reinsert loose pages and/or replacement pages

1. Run a very narrow bead of adhesive (PVA) along the spine edge.



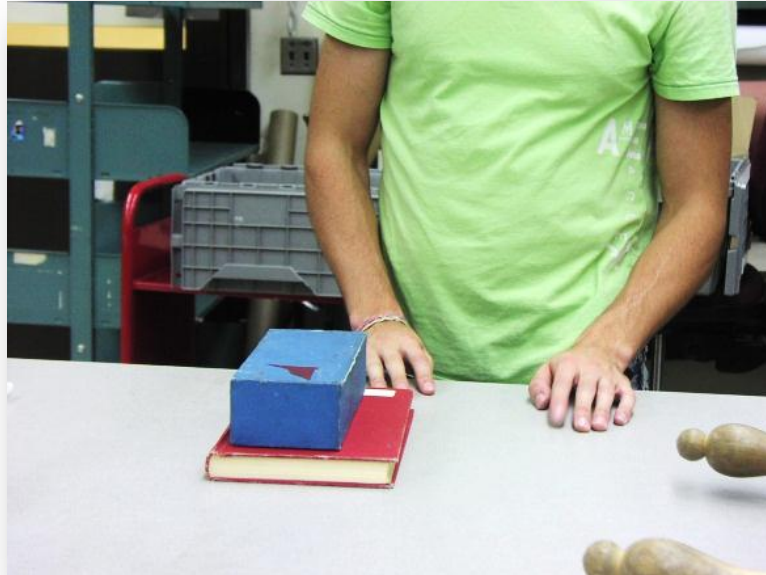
2. Insert into gutter and align.



3. Apply pressure and let dry.



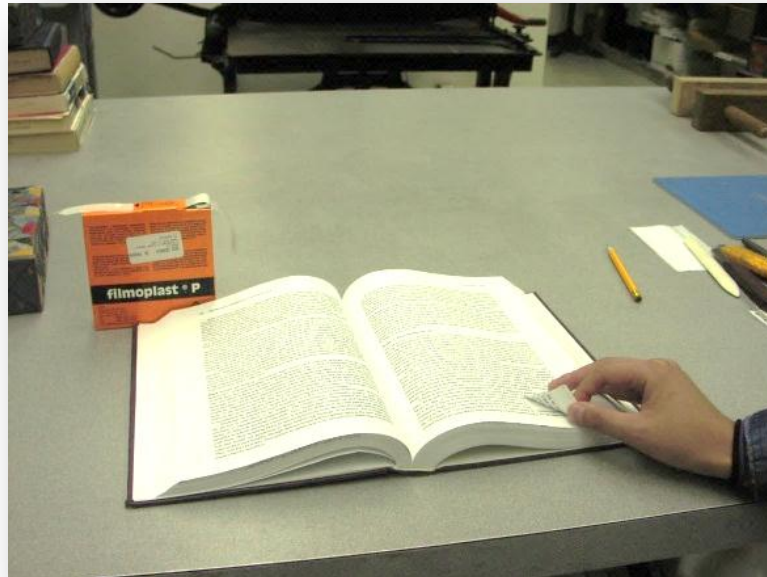
4. Close book and let dry with a brick on top.



Video demonstration of this technique at http://www.youtube.com/watch?v=iQjJXC8_VS4

Page Repair:

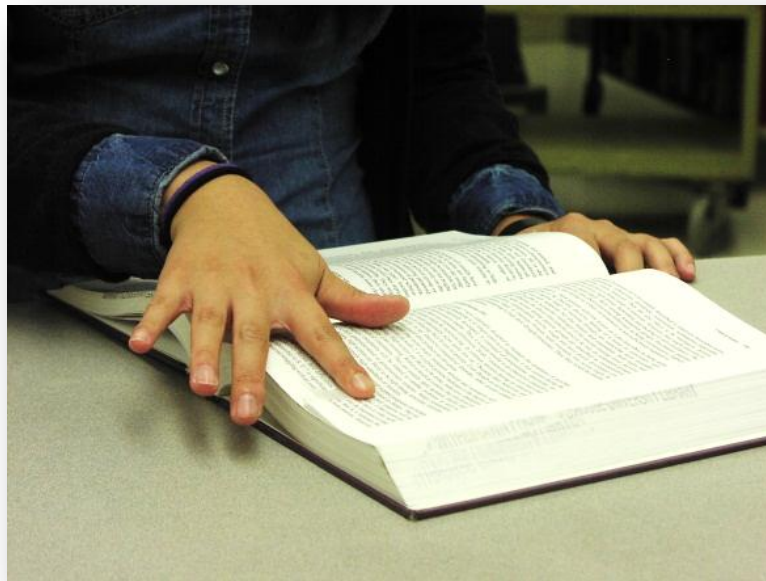
1. Align parts of tear



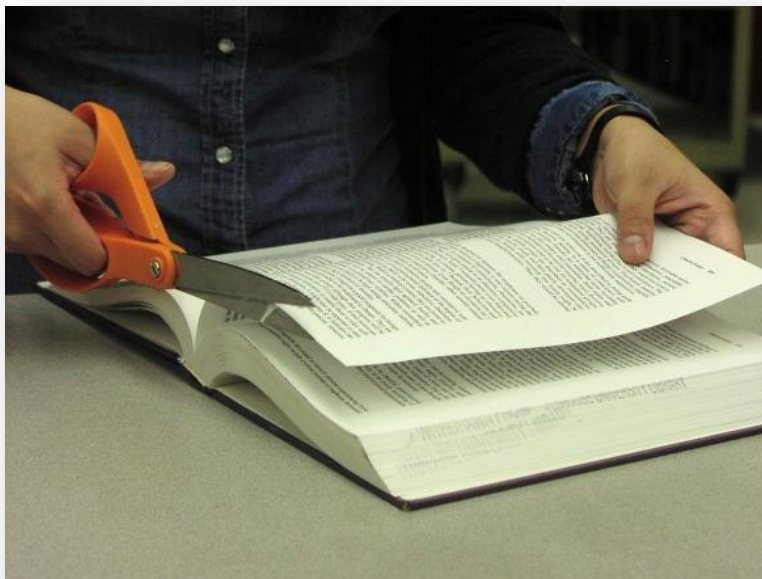
2. Place Filmoplast P mending tape over tear. Full width of roll not needed for most repairs. We recommend cutting it in half before applying.



3. After tape has been placed on book, lightly rub for full adhesion.



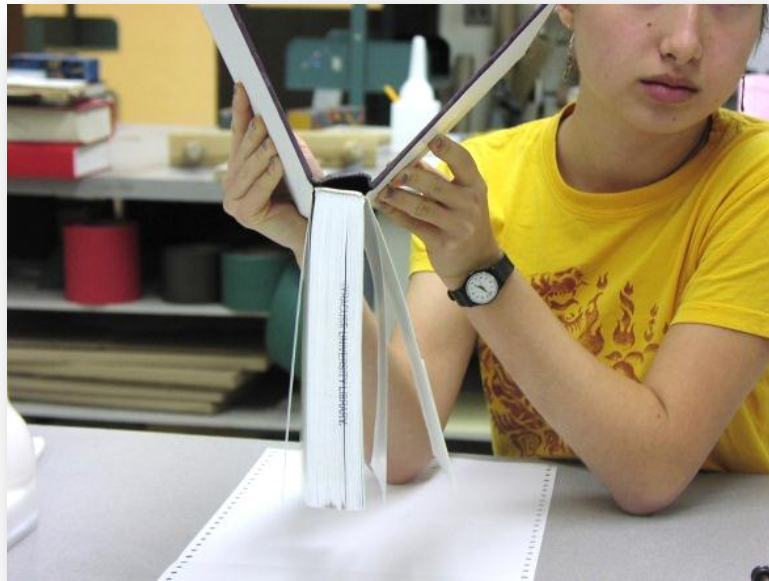
4. Using scissors trim tape at edge of page.



Video demonstration of this technique at <http://www.youtube.com/watch?v=5aQFI3ffD2E>

Hinge Tightening:

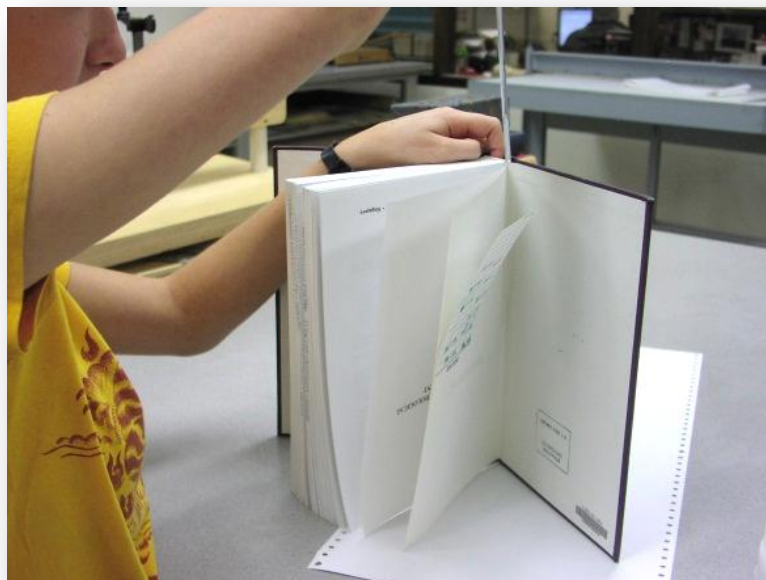
Loose or shaken hinges one of the leading causes of a further breakdown of the structure of the book



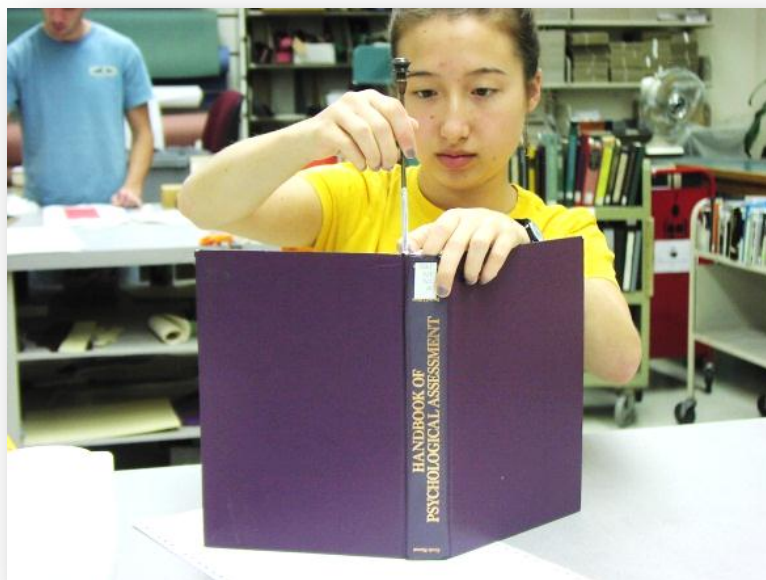
1. Using a knitting needle or acrylic rod glue thoroughly using PVA.



2. Open the book wide to open the hinges. Insert rod into hinge and twist around to allow all the glue to transfer into the hinge area only of the book.



3. Repeat with the other hinge.



4. Close book and gently rub down the outside groove of the book.



5. Place a brick on the book and let dry.



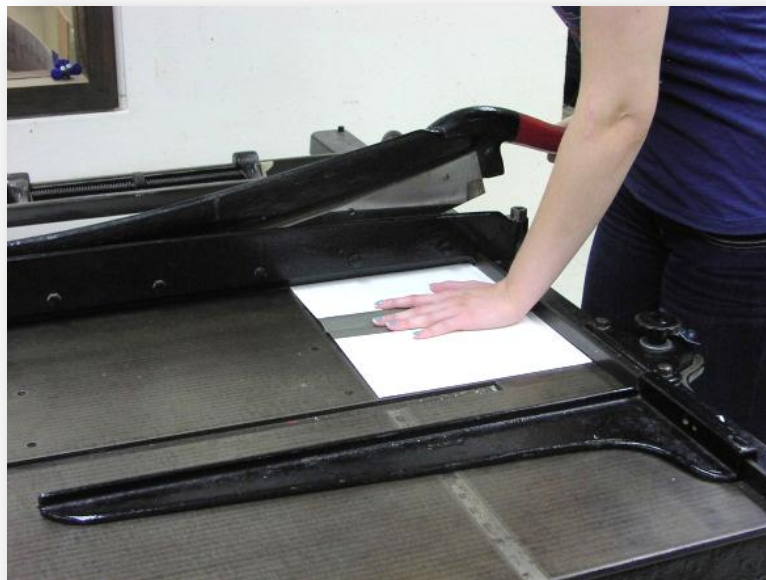
Video demonstration of this technique at <http://www.youtube.com/watch?v=rUoks74OYYA>

Sewing Pamphlet Binders:

1. Measure pamphlet size and mark binder.



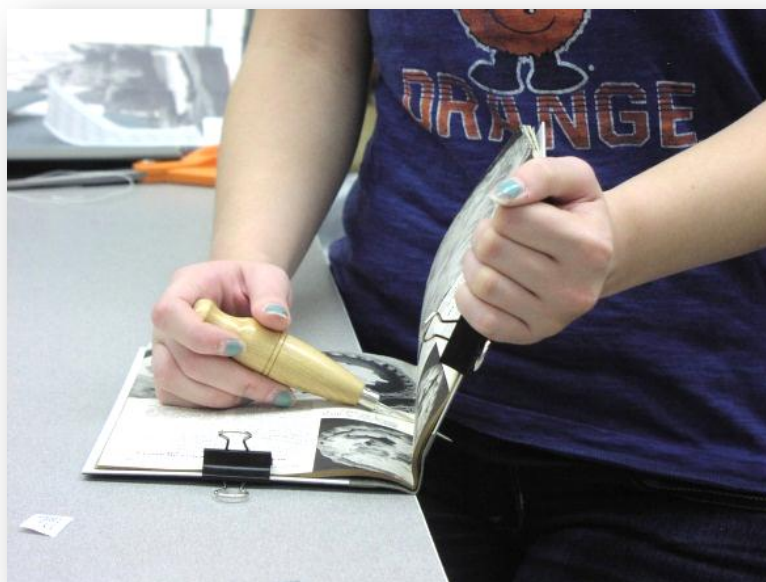
2. Cut binder to correct size.



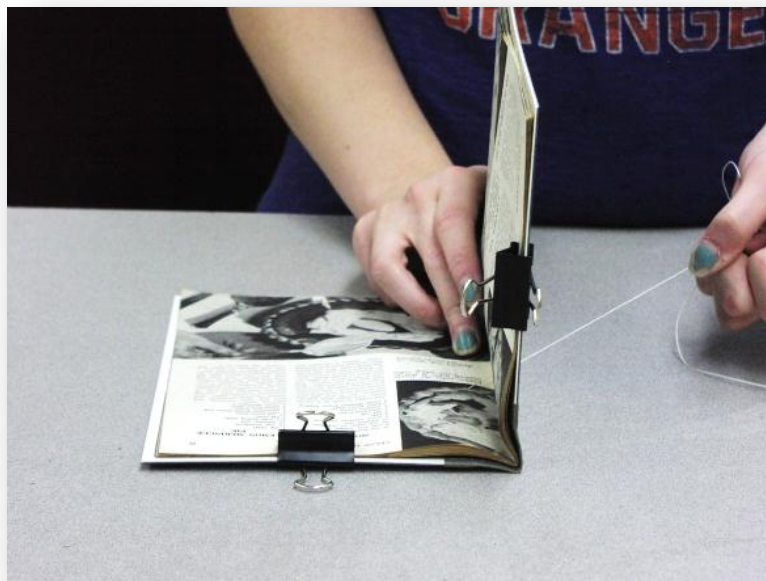
3. Using clips secure item to binder.



4. Make 3 holes in the binder using an awl. One in the middle and the other two about an inch from the top and bottom.



5. Thread needle and begins sewing starting from the inside out. Start in the center then go to the top. You will end up inside the book, go all the way to the bottom of the binder and sew thru. Take the last bit of thread and push thru the center whole.



6. Tie both ends in a tight knot inside the book.



7. Cut end of thread. Check to make sure thread is tight.

